

WHAT IS CLAIMED IS:

1. A quick connector for power wire comprising: a female base, a female cover, a sliding piece, an inner spring, a loop, an outer spring, a male base and a male cover, the quick connector being disposed between 5 a distribution box and an object to be connected;

the female base, interiorly defined with a through passage, being fixed in the distribution box, at both sides of the passage formed with sliding holes, at the position corresponding to the sliding holes being respectively formed with two through holes extending outward from 10 inner surface of the passage, in the through holes being disposed with rolling element;

the female cover mounted on the female base, a connecting portion being formed in the female cover and employed to connect power wire;

15 the sliding piece, on which is provided with two protrusive pieces, in a front end of the two protrusive pieces formed with cambered surfaces, the sliding piece being movably disposed between the female base and the female cover, and the two protrusive pieces being inserted in the passage of the female base in a manner that the two protrusive 20 pieces abutting against the inner surface of the passage, traveling path of the two protrusive pieces corresponds to the through holes of the passage;

the inner spring biased between the sliding piece and the female cover;

25 the loop defined at its center with a through hole, and at both sides the loop formed with protrusions, the through hole serving to receive the inner spring and the sliding piece, the protrusions to be slidably inserted in the sliding holes of the female base, at outside of an inner surface of the protrusions a cambered surface and a receiving notch

being sequentially formed, the cambered surface and the receiving notch correspond to the through holes of the female base, and the receiving notch serving for the reception of rolling needle of the female base;

the outer spring biased between the loop and the female cover
5 for the reception of the inner spring;

the male base fixed to an end of the object to be connected, on the male base corresponding to the end of the object being defined with working portion which is shaped in corresponding to the passage of the female base, from an end of the working portion inward a cambered edge,
10 a flange and a locating groove being formed sequentially, the cambered edge and the locating groove correspond to the rolling needle of the female base, the flange corresponds to the two protrusive pieces of the sliding piece;

the male cover, at an end of which is defined an inserting portion
15 that formed in corresponding to shape of the connecting portion of the female cover, the male cover being received in the engaging hole of the male base, such that power can be transmitted to the to-be-connected object from the female cover.

2. The quick connector for power wire as claimed in claim 1,
20 wherein the sliding piece consists of two protrusive pieces and a ring portion, the inner spring is biased between the ring portion of the sliding piece and the female cover.

3. The quick connector for power wire as claimed in claim 1,
wherein the rolling element of the female base is rolling needle.

25 4. The quick connector for power wire as claimed in claim 1,
wherein the rolling element of the female base is rolling ball.